Geographic Review Panel 4 – San Joaquin River

Proposal number: 2001-C208 **Short Proposal Title**: Tuolumne River Fine Sediment Management

1. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA priorities, and relevance to ERP and CVPIA priorities for your region. The Panel concurs with the staff reviews on applicability of this project to ERP goals and CVPIA priorities. This action also directly addresses a stage one action in the ERP Implementation plan; Action 43—Tuolumne River sediment management plan and Tuolumne River implementation actions. Lots of effort and resources are currently focused on channel restoration for the Tuolumne River, however, there is an incomplete understanding of coarse and fine sediment dynamics and implications.

2. Linkages/coordination with previously funded projects or other restoration activities in your region. This project is consistent with the Tuolumne River Habitat Restoration Plan and is linked to channel restoration projects downstream of this site. This proposed action is designed to complement a currently funded coarse sediment management effort that will be underway in late fall of 2000. The affects of fine sediment source, load, and transport will interact with, and in part affect, the success coarse sediment and channel restoration interventions that are either underway or will be shortly. This action is intended to: 1) reduce fine sediment inputs into an important spawning segment of the river; 2) identify remedies to reduce storage or impacts of fine sediments in the mainstem river; and 3) to better quantify the relationship between fine sediment loads and the success of young salmon egg to alevin survival. All of these are important objectives, with the key question being can these objectives be met.

3. Feasibility, especially the project's ability to move forward in a timely and successful manner. The Panel concurs with the TARP that the engineering aspects of the proposal were feasible, the demonstration aspects were more questionable, and the research aspects more problematic due to sample size and the difficulty in controlling for confounding effects of experimental procedure and apparatus. A question that remains is whether or not the fine-sediment catchment on Gasburg Creek is an effective solution to fine-sediment reduction and, whether or not this would take some of the emphasis away from longer-term remedies needed in the Gasburg Creek watershed.

4. Qualifications of the applicants and others involved in implementing the proposed project. The Panel concurs that a suitable planning and implementation team has been assembled to complete evaluation and implementation elements of the proposal.

5. Local involvement (including environmental compliance). The project team has demonstrated the ability with past projects to practice due diligence to involve all local and interested stakeholders, however, little up front effort has been made to coordinate with landowners in the Gasburg Creek watershed related to the watershed evaluation. Most or all of the mainstem work may not require much if any local involvement other

than the need to provide information to interested parties and to obtain the necessary permits.

6. Cost. The Gasburg Creek sediment basin is the biggest cost at over $319,000 for an interim fix, which seems high. Also, the survival to emergence study at $116,000 for one year of field work that includes measures at 20 (15 constructed and 5 natural) redds seems high, but this is difficult to assess based on a generic budget.

7. Cost sharing. The AFRP is contributing $205,200 in FY2000 for elements of the coarse sediment management plan and one element (evaluate alternative methods for removing fine sediment stored in pools and riffles) of the fine sediment management plan. The Tuolumne River TAC is providing $33,000 of in-kind funding to the project.

8. Additional comments. This Panel feels that this experimentation, evaluation, implementation approach has merit and could help to better understand the interactions between physical processes such as fine and coarse sediment transport and storage with channel reconstruction projects and biological outcomes. However, there is concern with the feasibility of the survival-to-emergence experimental approach and the practicality of the sedimentation basin on lower Gasburg Creek. But the Panel also recognizes that Gasburg Creek could be the single largest source of fine sediment to an important spawning reach on the mainstem, and that the positive effects of other remedial action in this watershed will take time to be realized. The concern with the survival-to-emergence experiment is that of a relatively small sample size and the fact that this type of experiment is extremely sensitive to confounding survival effects from the experimental apparatus. This warrants caution. This also was a concern of the TARP. If this component of the project is funded additional outside technical input on experimental design and technique is warranted. The watershed evaluation and restoration of Gasburg Creek and the mainstem fine sediment storage evaluation and completion of the sediment removal techniques are reasonably well justified and supported.

Regional Ranking

Panel Ranking: Medium

Provide a brief explanation of your ranking: The TARP ranked this proposal as good with some reservations about the survival-to-emergence experiment and the certainty of useful results, as well as the mechanical-fix nature of the sediment basin on Gasburg Creek. This Panel likewise has concerns about these project elements but recognizes the potential short-term benefits of the sediment basins until longer-term remedies can be implemented and benefits accrue.